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LAKE CICOTT, INDIANA, AND NOTES ON ITS FLORA  
AND FAUNA.

BY BARTON W. EVERMANN AND H. WALTON CLARK.

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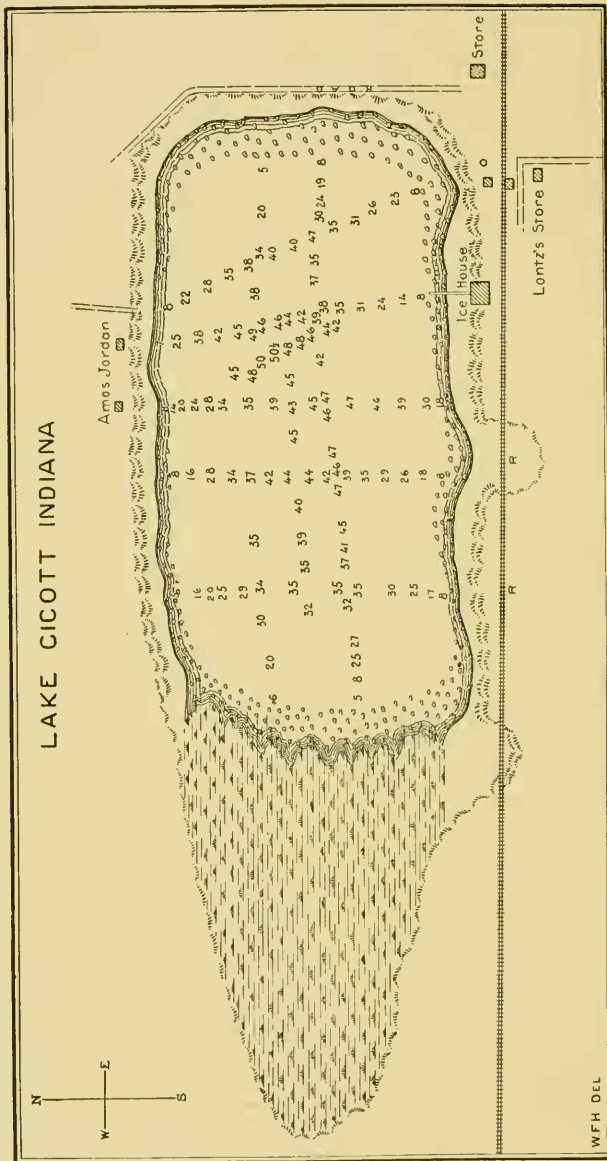
On October 20, 1900, the senior writer visited Lake Cicott for the purpose of learning something about its physical and biologic features. He was accompanied by Mr. John J. Hildebrandt of Logansport, who rendered valuable assistance in the study of the hydrography of the lake.

Lake Cicott is situated in the southwest corner of Cass County, Indiana, about 10 miles west of Logansport on the Effner branch of the Panhandle Railroad. The railroad station of Lake Cicott is a small place with 2 general stores, a small depot, water tank, and 10 to 15 residences.

This lake is of special interest because of the fact that it is the most southern of all that great group of glacial lakes so abundant in many of the counties in northern Indiana. Although the drift extends much farther south, nearly to Bloomington, Ind., and the ice-sheet doubtless extended nearly as far, no permanent lakes were formed so far south; indeed, Cass County seems to be the southern limit, and Lake Cicott is the only glacial lake in this county.

Lake Cicott is somewhat less than one-half mile long and about one-fourth mile wide. The major axis lies in a general east and west direction, the west end being a little farther north. The outline is quite regular, there being no strongly salient points or well-marked coves. The accompanying outline map shows fairly well the shape of the lake and other general features.

On the north and south sides the shores are of firm sand and clay, and rise quickly 10 to 25 feet above the surface of the lake, and are, therefore, high and dry, much like those of



Fletcher Lake (12 miles north of Logansport), and are covered with hard-wood trees.

At the west end is a long, marshy tract, several acres in extent, formerly all under water, but now simply marshy. It is said that it was much drier some years ago and much of it was cultivated in corn. This marsh is bounded by high ground, and doubtless represents the earlier and maximum extent of the lake in that direction.

At the east end the ground is dry, but only 4 or 5 feet above the lake and without any higher ground farther back. The lake now has no permanent outlet, but it is said at times to overflow at this end, the water finding its way eastward into Crooked Creek which flows into the Wabash River. Evidently the lake was formerly considerably larger than it now is; especially was it much longer than at present. The north and south limits have not greatly changed.

It is said that the water-level of the lake is a little higher now than it was a few years ago. Evidencing the probable truth of this belief is the presence of a clump of willows growing in the water 10 to 20 feet from shore in the southeast corner. A curious belief held by some inhabitants of the region is that the lake changes in seven-year cycles—that it rises for seven years, then falls for seven years; but data bearing on this question are lacking.

The lake is fed wholly by surface drainage, and, possibly, by springs. There are no streams flowing into it, and the catchment basin is not greatly larger than the area of the lake itself plus the marsh ground at its head.

While the shore entirely round the lake is dry and firm, except at the west end, there is in the edge of the water along the shore a strip of varying width of spatter-dock (*Nymphaea advena*), water-lily (*Castalia odorata*), water-shield (*Brasenia purpurea*), and a few pickerel weeds (*Pontederia cordata*); and mixed in with these is a dense growth of hornwort (*Ceratophyllum demersum*), water star-grass (*Heteranthera dubia*), a small amount of ditch moss (*Philotria canadensis*), *Chara*, a small amount of cattail (*Typha latifolia*), and various algae. The bottom on which these plants grow in this lake is of soft muck. Somewhat farther out and in deeper water was considerable water milfoil (*Myriophyllum spicatum*), hornwort, and fine *Chara*.

The anchor or sounding lead brought up no vegetation from depths as great as 25 feet.

*Depth.*—Altogether 173 soundings were taken, with a specially constructed sounding reel with piano wire. Three east and west lines were run, a sounding being taken every 10 oar-strokes in the first two, and every 5 oar-strokes in the third line. Five approximately north and south lines were run and a sounding taken every 5 oar-strokes.

Line AB. From north of the middle of east end and running to near middle of west end. The wind being from the southeast, the boat tended constantly to drift toward the north shore; in consequence, this line has a somewhat northward curve. From lily-pads to lily-pads, 14 soundings were taken.

Depths: 5, 20, <sup>1</sup>34, 38, 49, 48, 43, 38, 36, 35, 34, 30, 20 and 6.

Line CD. Beginning at west end about one-third distance from south side and ending near middle of east end. This line also curves somewhat to the northward. Soundings were at briefer intervals.

Depths: 5, 8, 25, 27, 30, 32, 34, 37, 41, 45, 46, 47, 46, 47, 47, 47, 46, 42, 41, 39, 38, 37, 35, 33, 30, 24, 19 and 8.

Line EF. From west to east through middle of lake. Twenty soundings, one every 5 oar-strokes, and only through the deep water.

Depths: 32, 33, 35, 35, 37, 39, 40, 40, 40, 41, 42, 44, 45, 45, 43, 44, 45, 47, 48 and 44 (this last taken twice).

Line GH. From railroad water tank northwest to the Amos Jordan house. The wind tended to drift the boat west of the direct line. Thirteen soundings.

Depths: 8, 23, 26, 31, 35, 47, 40, 40, 38, 35, 28, 22 and 8, every 5 oar-strokes from lily-pads to lily-pads.

Line IJ. From ice-house chute northward toward the Jordan house, 14 soundings, every 5 oar-strokes, from lily-pads to lily-pads.

Depths: 8, 14, 24, 31, 35, 38, 42, 46, 46, 45, 42, 38, 25 and 7.

Line KL. From Jordan's barn, straight to south shore, 24 soundings.

Depths: 8, 14, 20, 24, 28, 34, 34, 35, 37, 39, 42, 43, 45, 46, 46, 47, 46, 46, 44, 39, 35, 30, 18 and 6.

Line MN. From south shore northward in line with fence west of Jordan's barn, 15 soundings.

Depths: 8, 18, 26, 29, 35, 39, 42, 44, 44, 42, 37, 34, 28, 16 and 8.

Line OP. From north shore near tallest sycamore, southward to west end of largest clump of willows, 27 soundings.

Depths: 5, 6, 16, 20, 25, 27, 29, 33, 35, 35, 35, 35, 35, 35, 35, 35, 35, 35, 32, 32, 30, 27, 25, 21, 17 and 8.

Line QR. This is a series of 15 miscellaneous soundings in the deepest part of the lake and about on a line between Jordan's barn and the middle of the ice-house starting about  $\frac{1}{3}$  distance across the lake from north shore and sounding every 5 oar-strokes or closer.

Depths: 45, 46, 47 $\frac{3}{4}$ , 50, 50, 50, 50 $\frac{1}{2}$ , 49, 48, 48, 48, 46, 44, 44 and 42.

From the above it appears probable that the greatest depth is about 50 feet. It is not likely that a much greater depth than this can be found, and 51 feet may, therefore, be put down as the maximum depth of Lake Cicott. It is said by some people of the neighborhood that the lake is bottomless, and that recently it was sounded with a 400-foot line and no bottom was found! Others say that bottom was found at 80 feet, and still others at 60 or 65 feet.

It will be noticed that the depth increases very rapidly from shore out and that the depth is pretty uniform in the middle of the lake.

There is very little clean sand or gravel anywhere; up to 20 or 25 feet the bottom seems to be pretty well covered with *Chara*, *Myriophyllum*, etc., beyond which it is of soft muck.

*Temperatures.*—A vertical series of temperature readings was taken at the last sounding on line EF (depth 44 feet), with the following results:

|                      |         |       |       |       |       |       |     |     |       |       |
|----------------------|---------|-------|-------|-------|-------|-------|-----|-----|-------|-------|
| Depths in feet . . . | surface | 5     | 10    | 15    | 20    | 25    | 30  | 35  | 40    | 44    |
| Temperatures . . .   | 61.8°   | 61.5° | 61.5° | 61.5° | 61.5° | 53.2° | 48° | 45° | 44.2° | 44.2° |

The bottom temperature was also taken at the fourth station

of line QR, depth 50 feet, and found to be 44°. This low temperature is interesting. It shows that the bottom of Lake Cicott was colder than Fletcher Lake, the lowest temperature of which was 47°, and was 7.5° colder than the bottom of Lake Maxinkuckee at 88 feet, taken about the same date.

*Fishes.*—The following species of fishes are known to occur in this lake. Very little collecting was done and the list is, of course, incomplete:

1. Yellow Cat, *Ameiurus natalis*. Not rare.
2. Bullhead, *Ameiurus nebulosus*. Not rare.
3. Grass Pike, *Esox vermiculatus*. Not rare.
4. Top Minnow, *Fundulus dispar*. Common.
5. Calico Bass, *Pomoxis sparoides*. Not common.
6. Bluegill, *Lepomis pallidus*. Common.

Yellow perch,\* rock bass, large-mouth black bass\* and small-mouth black bass were said not to occur here.

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\*The investigations made at the time of this visit led the writer to recommend that this lake be stocked with large-mouth black bass. The Bureau of Fisheries placed 400 of that species in the lake in the fall of 1902, and the stocking has proved very successful. Under date of May 11, 1908, Mr. John J. Hildebrandt, of Logansport, writes that bass are now very abundant in this lake and that some of very large size have been taken, among them one weighing 5½ pounds.

It is believed that the yellow perch also would do well in this lake and its introduction has been recommended.